

# Service Manual

Mini Cassette

RQ-P35

Stereo Cassette Player

Colour

(K)..... Black Type

Area

Suffix for Model No.	Areas	Colour
[E]	Europe	(K)
[E1]	Europe	



## ■ SPECIFICATIONS

### General:

Power Requirement: Battery; 3V (Two "AA" size, R6/LR6 batteries)  
 Power Output: 40mW (20mWx2)---RMS (max.)  
 Output: Headphones; 24Ω, ϕ3.5  
 Dimensions: 86.7(W)×113.1(H)×31.3(D)mm  
 Weight: 130g without batteries

### Tape Deck Section:

Frequency Response: 60 ~ 16,000Hz (Normal, CrO<sub>2</sub>/Metal)  
 Tape Speed: 4.8cm/s  
 Program Time: 1 hour with C-60 cassette tape  
 Track System: 4-track, 2-channel, stereo playback

1. Weights and dimensions shown are approximate.
2. Design and specifications are subject to change without notice.

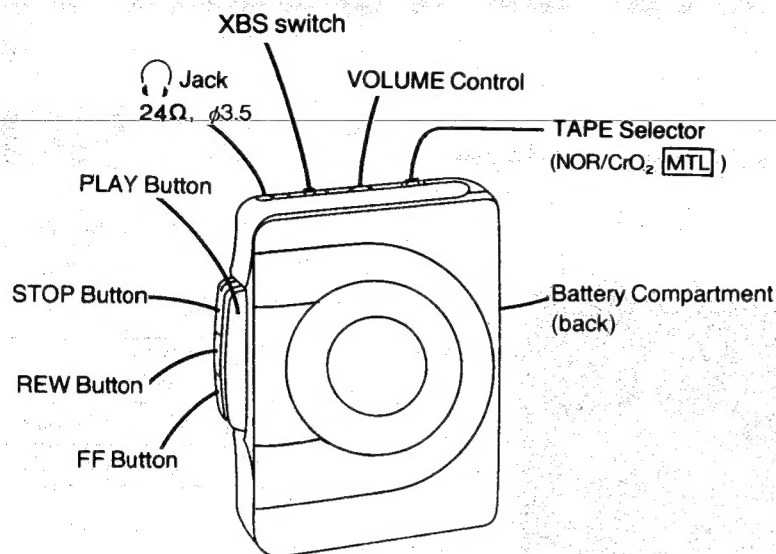
## ⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

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## ■ LOCATION OF CONTROLS



## ■ DISASSEMBLY INSTRUCTIONS

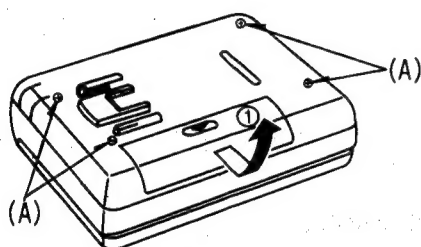


Fig. 1

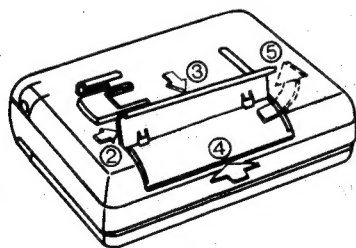


Fig. 2

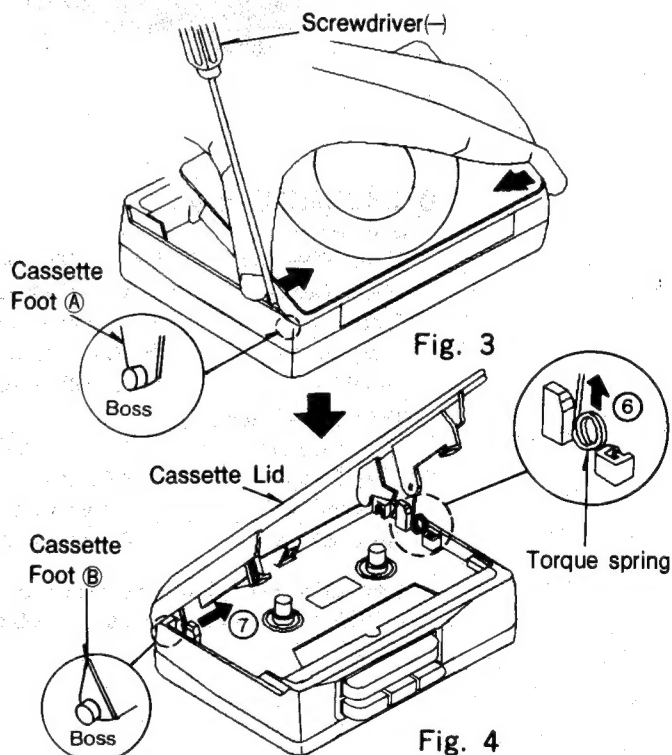


Fig. 4

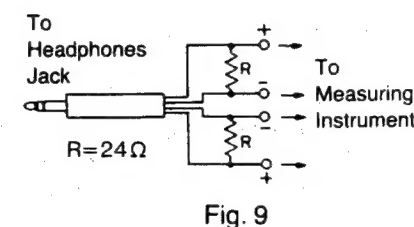
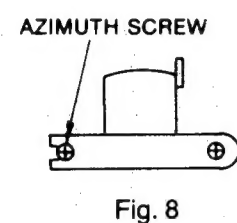
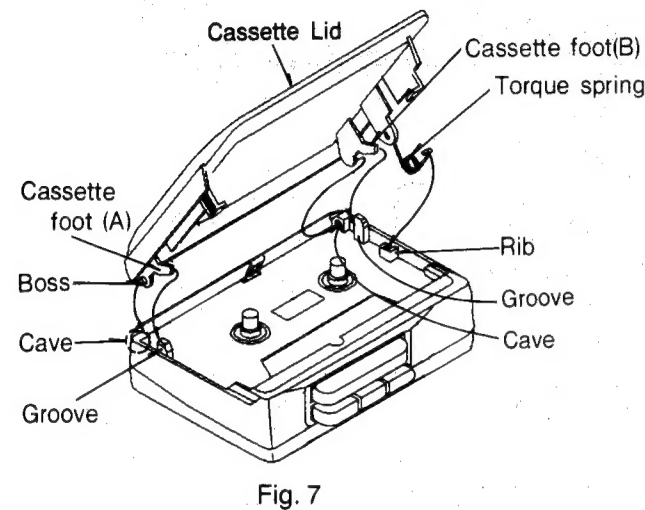
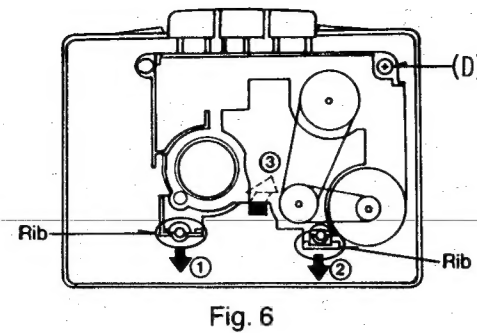
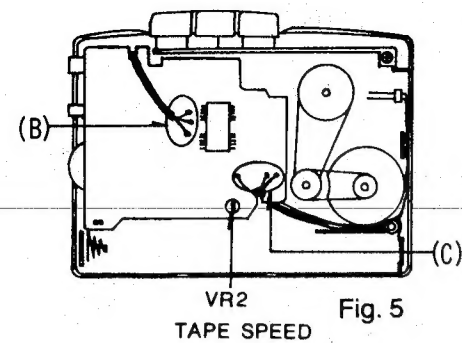
### ● Removal of the battery cover and Rear Cabinet

1. Open the battery cover in the direction of arrow ①.
2. Remove the battery cover in the direction of arrow ② and ③.
3. Remove the screws (A) (2×10)mm×4.
4. Remove the rear cabinet in the direction of arrow ④ & ⑤.

### ● How to Removal of the Cassette Lid

Note: Be careful not to break cassette foots ④ and ⑤ when removing the cassette lid.

1. Strongly press two sides of the cassette lid, then it was bent a little.
2. With a (-) screwdriver as shown in Fig 3, and pull out the right-side of the cassette lid.
3. Remove the torque spring ⑥ in the direction of arrow.
4. By the direction of ⑦, remove the cassette foot.



### ● Removal of the Circuit Board (Fig. 5)

1. Remove the Solder (B) (C) from flexible PC board.

### ● Removal of the Front Cabinet and Mechanism (Fig. 6)

1. Remove the screws (D) (2×6)mm×1.
2. Remove the front cabinet & mechanism in the direction of arrow ①, ② and ③.

### ● How to Replace the Cassette Lid Spring (Fig. 7)

1. Enter the cassette foot (A) into the groove of the case body.
2. Enter the boss of the cassette foot into the cave.
3. To plug the torque spring into the groove of the case body.
4. Enter the cassette foot (B) into the groove of the case body.

## ■ MEASUREMENT AND ADJUSTMENTS

### ● ALIGNMENT INSTRUCTION

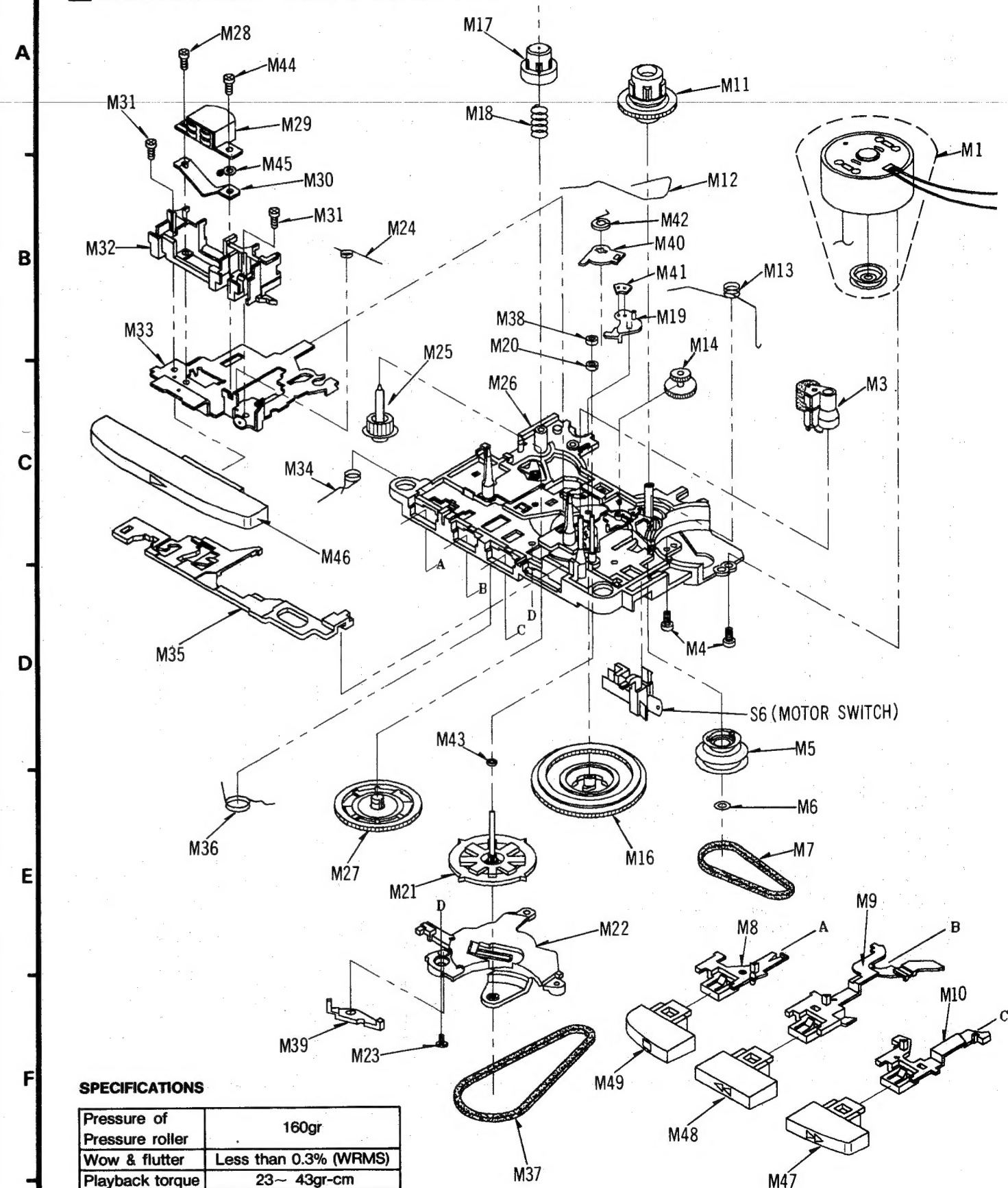
READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

1. Set volume control to maximum.
2. Set power source voltage to 3V DC.
3. Set Tape Selector Switch to normal.
4. Output of signal generator should be no higher than necessary to obtain an output reading.
5. Make sure heads are clean.
6. Make sure capstan and pinch roller are clean.

### ● TAPE DECK SECTION

ITEM	INPUT	MEASUREMENT POINT	ADJUSTMENT POINT	PROCEDURE
Azimuth	QZZCFM (8kHz, -20dB)	Headphones Jack (24Ω)	Azimuth adjustment screw (Refer to Fig. 8)	Adjust the azimuth adjustment screw during repeated forward and reverse playback to obtain the maximum head azimuth alignment with both channels equal. Then screw-lock the adjustment in place.
Tape speed	QZZCWAT (3kHz, -10 dB)	(Fabricate the plug as shown in Fig. 10 and then connect the lead wires of the plug to the measuring instrument.)	VR2 (Refer to Fig. 5)	Playback the central part of the tape and adjust VR2 so that the tape speed is as follows. 3000±60Hz (Forward & Reverse)

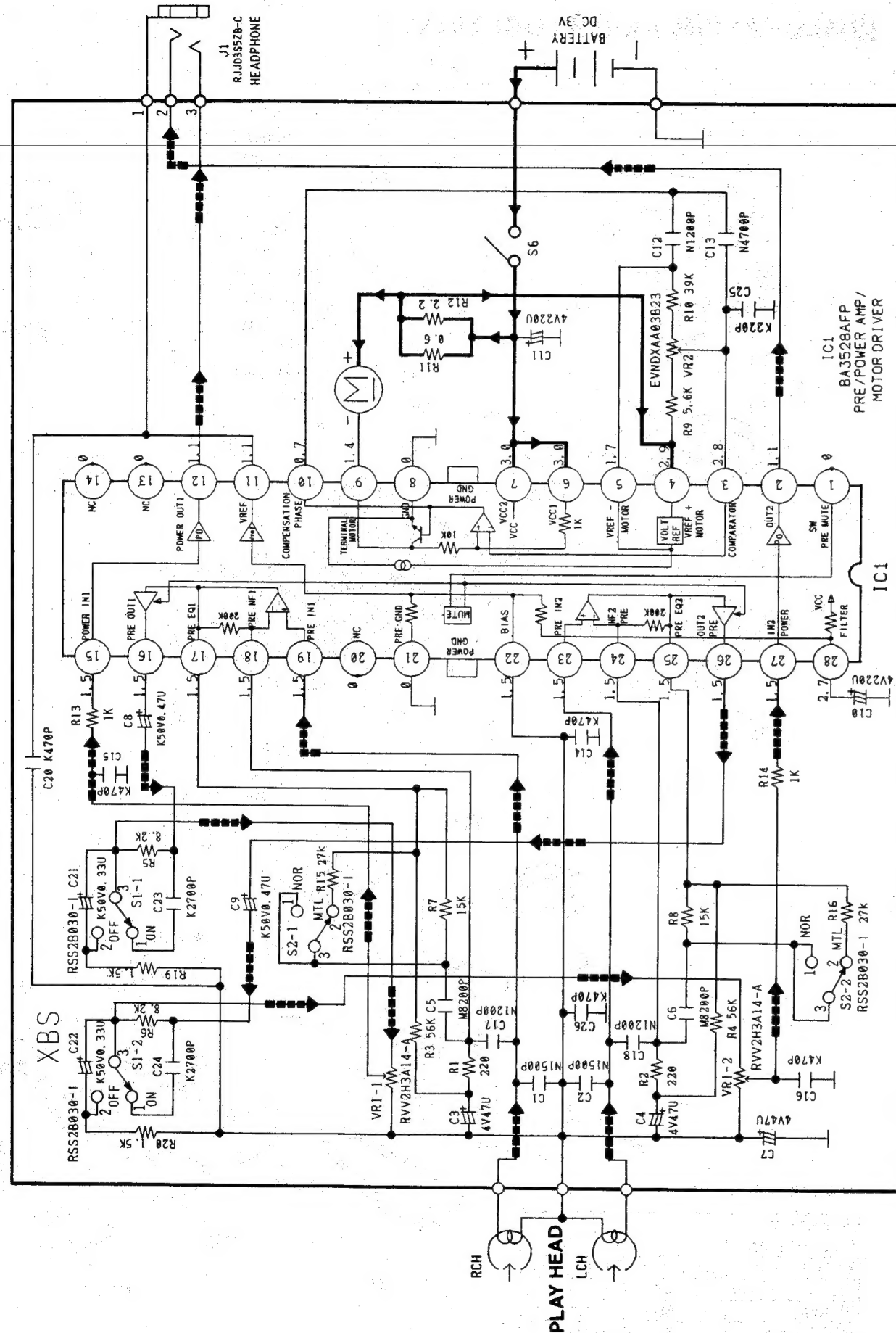
## ■ MECHANISM PARTS LOCATION



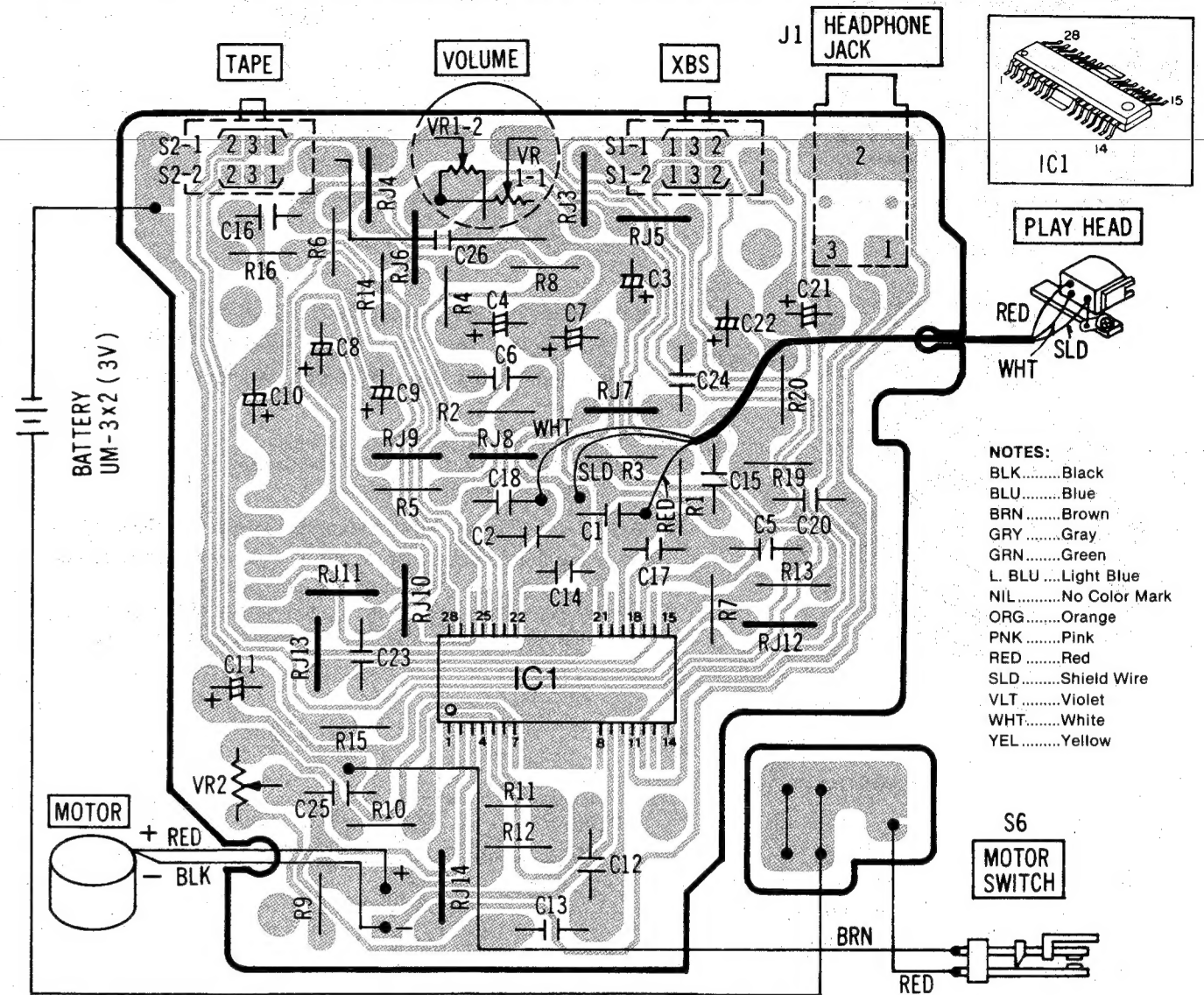
### SPECIFICATIONS

Pressure of Pressure roller	160gr
Wow & flutter	Less than 0.3% (WRMS)
Playback torque	23~ 43gr-cm
FF torque	60~160gr-cm
REW torque	60~160gr-cm

SCHEMATIC DIAGRAM



CIRCUIT BOARD AND WIRING CONNECTION DIAGRAM



- NOTES:
- BLK.....Black
  - BLU.....Blue
  - BRN.....Brown
  - GRY.....Gray
  - GRN.....Green
  - L. BLU.....Light Blue
  - NIL.....No Color Mark
  - ORG.....Orange
  - PNK.....Pink
  - RED.....Red
  - SLD.....Shield Wire
  - VLT.....Violet
  - WHT.....White
  - YEL.....Yellow

Notes:

- S1-1, 1-2: XBS switch in "ON" position.  
(1...ON, 2...OFF)
- S2-1 2-2: Tape Selector Switch in "CrO<sub>2</sub>/METAL" Position.  
(1...Normal, 2...CrO<sub>2</sub>/Metal)
- S6: Motor Switch in "OFF" Position.
- VR1-1: Volume Control VR. (Rch)
- VR1-2: Volume Control VR. (Lch)
- VR2: Tape Speed adjustment VR.
- All voltage value shown in circuitry are under no signal condition and playback mode with volume control at maximum position.
- Battery current: Volume minimum output.....100mA  
Volume Maximum output.....160mA  
(315Hz 0dB tape QZZCFM playback)

- +B Voltage Line.
- Playback Signal.

● This schematic diagram may be modified at any time with the development of new technology.

REPLACEMENT PARTS LIST

Notes:

The (M) Indicates parts that are supplied MESA

Ref No.	Part No.	Part Name & Description
INTEGRATED CIRCUIT		
IC1	BA3528AFP	I.C.Play Speed (M)
VARIABLE RESISTOR		
VR1	RVV2H3A14-A	V.R.Volume Control (M)
VR2	EVNDXAA03B23	V.R.Motor Speed (M)
SWITCHES		
S1	RSS2B030-I	SW,XBS (M)
S2	RSS2B030-I	SW,NOR/MTL (M)
S6	RFA114ZA	SW, Motor (M)
JACK		
J1	RJJD3S5ZB-C	Headphones Jack (M)



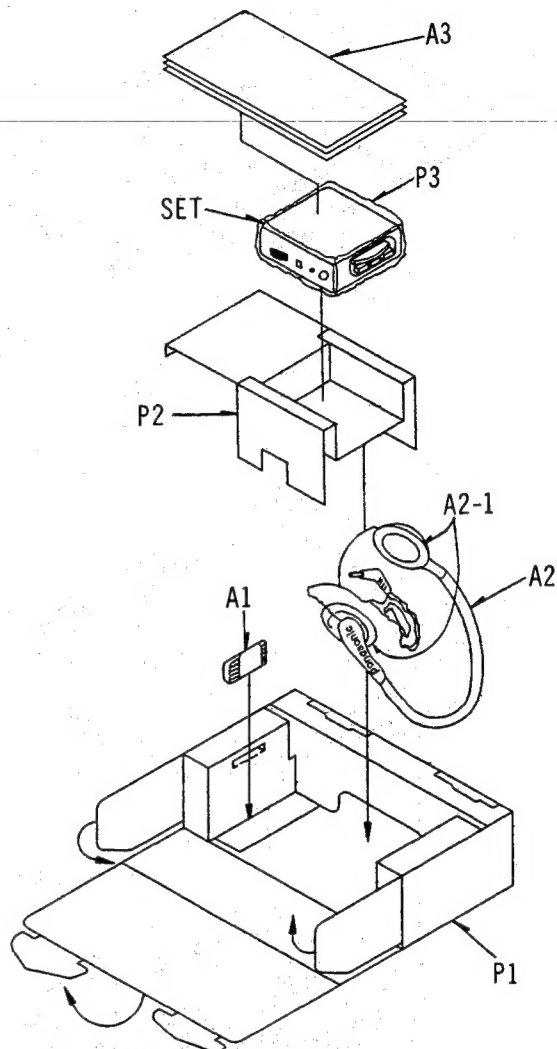
## ■ REPLACEMENT PARTS LIST

Notes:

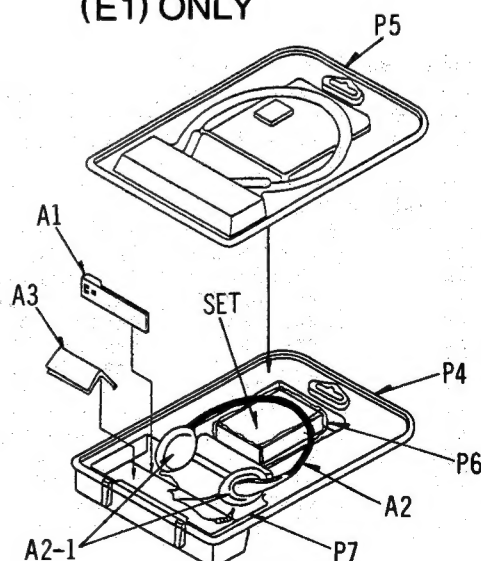
The (M) Indicates parts that are supplied MESA

Ref No.	Part No.	Part Name & Description
MECHANICAL PARTS		
M1	RFKPQV85P	Motor Ass'y (M)
M3	RFR77ZA	Pinch Roller Arm Ass'y (M)
M4	RFE598ZA	Tapping Screw (M)
M5	RFQ75ZA	Trans Pulley (M)
M6	RFN246ZA	Lumilar Washer (M)
M7	RFB124ZA	M. Belt (M)
M8	RFY1067ZA	Stop Lever (M)
M9	RFY1068ZA	Rwd Lever (M)
M10	RFY1069ZA	FF Lever (M)
M11	RFJ102ZA	Take Up Reel Ass'y (M)
M12	RFS976ZA	Sensor Spring (M)
M13	RFS977ZA	HP Spring (M)
M14	RFG173ZA	T. Up. Gear (M)
M16	RFG174ZA	Cam Gear (M)
M17	RFJ103ZA	Rwd Reel Hub (M)
M18	RFS978ZA	B.T Spring (M)
M19	RFY1070ZA	Auto Lever (M)
M20	RFX185ZA	Washer (M)
M21	RFF95ZA	Flywheel Ass'y (M)
M22	RFD448ZA	FL Bracket (M)
M23	RFX186ZA	Washer (M)
M24	RFS979ZA	PR Spring (M)
M25	RFG175ZA	Rwd Hub Gear (M)
M26	RFU225ZA	Chassis Ass'y (M)
M27	RFG176ZA	Rwd Gear (M)
M28	RFE599ZA	Screw (M)
M29	RFH68ZA	P. Head (M)
M30	RFS980ZA	Head SPR-PL (M)
M31	RFE600ZA	Tapping Screw (M)
M32	RFE601ZA	Tape Guide (M)
M33	RFU226ZA	Head Panel (M)
M34	RFS981ZA	Stop Spring (M)
M35	RFY1071ZA	Lock Plate (M)
M36	RFS982ZA	FR Spring (M)
M37	RFB125ZA	FL Belt (M)
M38	RFN247ZA	Washer (M)
M39	RFX187ZA	FF Stopper (M)
M40	RFY1072ZA	A Push Arm (M)
M41	RFY1073ZA	Blance Plate (M)
M42	RFN248ZA	Washer (M)
M43	RFN249ZA	Washer (M)
M44	RFE603ZA	Screw (M)
M45	RFE604ZA	LUG Plate (M)
M46	RGUT0014-K	Button, Play (M)
M47	RGUT0015-K	Button, FF (M)
M48	RGUT0016-K	Button, REW (M)
M49	RGUT0017-K	Button, Stop (M)

## ■ PACKING (E) ONLY



## (E1) ONLY



Ref No.	Part No.	Values	Ref No.	Part No.	Values
RESISTORS			CAPACITORS		
R1,2	ERDS2TJ221T	(M)	C1,2	ECBT1C152NR5	(M)
R3,4	ERDS2TJ563T	(M)	C3,4,7	ECEA0GKA470I	(M)
R5,6	ERDS2TJ822T	(M)	C5,8	ECBT1C822KS5	(M)
R7,8	ERDS2TJ223T	(M)	C8,9	ECEA1HKAR47I	(M)
R9	ERDS2TJ392T	(M)	C10,11	ECEA0GK221IV	(M)
R10	ERDS2TJ393T	(M)	C12,17,18	ECBT1H122NR5	(M)
R11	RRSA39JR60TH	(M)	C13	ECBT1C472NR5	(M)
R12	ERDS2TJ2R2T	(M)	C14,15,16,20,28	ECBT1H471KB5	(M)
R13,14	ERDS2TJ102T	(M)	C21,22	ECEA1HKSR33	(M)
R15,16	ERDS2TJ273T	(M)	C23,24	ECBT1C272NR5	(M)
R19,20	ERDS2TJ152T	(M)	C25	ECBT1H221KB5	(M)
JUMPER					
RJ1~14	Z-RWDHT01	(M)			

# CABINET PARTS LIST

1 2 3 4 5

A

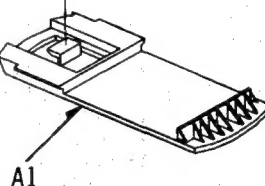
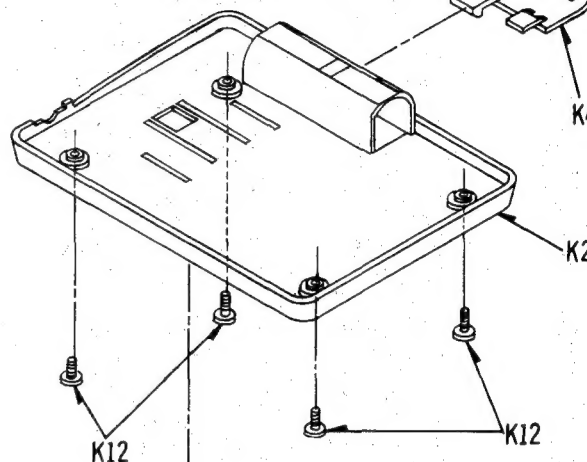
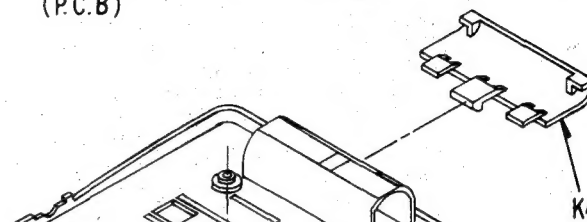
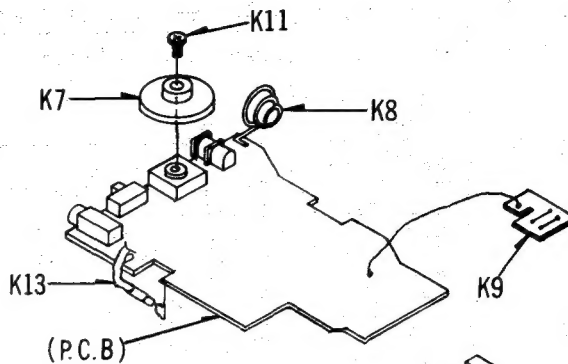
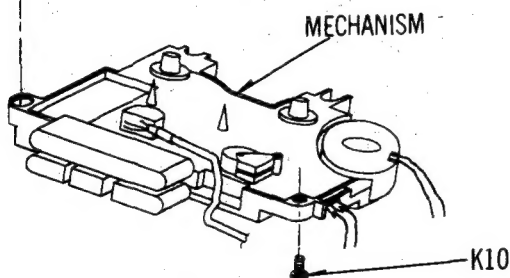
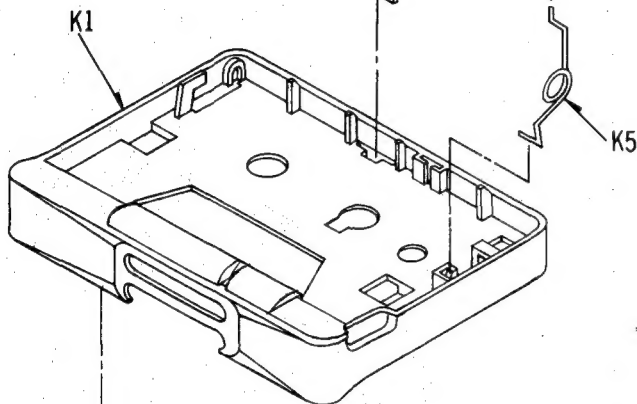
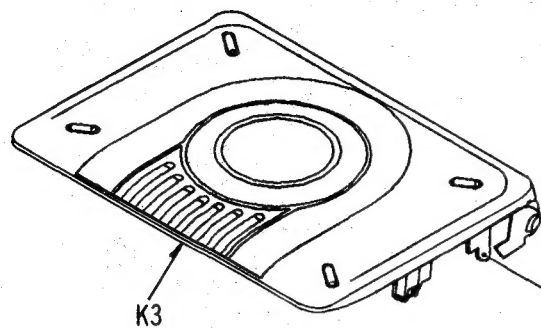
B

C

D

E

F



## \*REPLACEMENT PARTS LIST

The (M) Indicates parts that are supplied MESA

Ref No.	Part No.	Part Name & Description
CABINET PARTS		
K1	RKM0294C-K	Front Cabinet (M)
K2	RKS0206L-K	Rear Cabinet (M)
K3	RFKLQP35E	Cassett Cover Ass'y (M)
K4	RKK0085-K	Battery Cover (M)
K5	RMET0005	Cassette Spring (M)
K6	RUS262TZA	Tape Spring (M)
K7	RGW0261-K	Knob, Volume (M)
K8	RJC70017	Battery Terminal (-) (M)
K9	RJB1780A-A	Battery Terminal Chassis
K10	RHD006TZA	Screw (M)
K11	XSH14+4	Screw (M)
K12	XTNR2+10CFZ	Screw (M)
K13	RWWP40	Head Wire (M)

Ref No.	Part No.	Part Name & Description
ACCESSORY		
A1	RKQT0002-K	Belt Clip (M)
A2	RFEV705P-KY	Headphones (M)
A2-1	RFZW705TY	Ear Pad (M)
A3	RQTT0223-E	Instruction Manul (M)
PACKING MATERIALS		
P1[E]	RPKT0149	Decoration Box (M)
P2[E]	RPNT0172	Pad (M)
P3[E]	RPFT0015	Set Bag (M)
P4[E1]	RPNT0162	Clam Sheel (Front) (M)
P5[E1]	RPNT0161	Clam Sheel (Rear) (M)
P6[E1]	RPFT0017	Set Bag (M)
P7[E1]	RPQT0071	Pad (M)
JIG/TOOL		
SA1	QZZCWAT	TEST TAPE (TAPE SPEED etc) (M)
SA2	QZZCFM	TEST TAPE (AZINUTH/FREQ) (M)

Notes: The reference number SA erpresent the grease and tool used for this unit.